

國立成功大學智慧半導體及永續製造學院
半導體製程學位學程博士學位候選人資格考核書單

Book List for Doctoral Qualifying Examination

of the Program on Semiconductor Process Technology

Under the NCKU Academy of Innovative Semiconductor and Sustainable Manufacturing

科目 Subject Titles	參考書籍 Book List
半導體元件物理 Physics of Semiconductor Devices	1. Physics of Semiconductor Devices/Simon M. Sze, Yiming Li, Kwok K. Ng 2. Semiconductor Physics and Devices: Basic Principles/ Donald A. Neamen 3. Solid State Electronic Devices/ Ben G. Streetman, Sanjay Banerjee
半導體製程技術 Semiconductor Manufacturing Technology	1. Silicon VLSI Technology : Fundamentals, Practice and Modeling / James D. Plummer, Michael D. Deal, Peter B. Griffin 2. Introduction to Semiconductor Manufacturing Technology/Hong Xiao 3. Guide to Semiconductor Engineering/Jerzy Ruzyllo 4. Microchip Fabrication: A Practical Guide to Semiconductor Processing/Peter Van Zant
固態物理 Solid State Physics	1. Introduction to Solid State Physics/ Charles Kittel
光電元件 Optoelectronic Devices	1. Semiconductor Devices, Physics and Technology/ S. M. Sze, a chapter on photonic devices 2. Semiconductor Physics and Devices/ Donald A. Neamen, a chapter on optical devices 3. Semiconductor Optoelectronic Devices/ Pallab Bhattacharya 4. Photonic Devices/ Jia-Ming Liu
電磁理論 Electromagnetics Theory	1. Elements of electromagnetics/ M. N. O. Sadiku, S. R. Nelatury 2. Field and Wave Electromagnetics/ D. K. Cheng 3. Elements of Engineering Electromagnetics/ N. N. Rao